

REMARKS

Claims 15, 17-29, 63, 65, and 66 are pending in the Application. In the Office Communication mailed on January 13, 2009, the Examiner raises several new rejections, which for clarity are listed below in the order in which they are addressed herein.

- I. Claims 19 and 21 stand objected to because of the following informalities: "wherein the" in each instance are recited twice;
- II. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention;
- III. Claims 15, 17-21, 23-25, 28-2963 and 63-66 stand rejected under 35 U.S.C. 102 (b) as allegedly being anticipated by Egner et al (Chem. Commun., 1997);
- IV. Claims 15, 17-21, 24 and 65 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Lawandy (USP2003/0142713);
- V. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 102(a) as allegedly being anticipated by Garman et al (WO 9847838);
- VI. Claims 15-19, 22-25, 28-29 and 63 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Yamashita et al (WO95/32425);
- VII. Claims 15, 17-21 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Seul et al (USP 7083914);
- VIII. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Kauvar et al (USP6642062); and
- IX. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over anyone of the cited references above e.g., Egner et al, Lawandy, Garman, Yamashita ,Seul or , Kauvar (hereinafter the primary references) in view of either Kris et al (USP 6238869) or Kimura et al (USP 6228480).

Objections

- I. Claims 19 and 21 stand objected to because of the following informalities: "wherein the" in each instance is recited twice. Claims 19 and 21 are each herein amended to remove one appearance of this term.

The Claims Are Not Indefinite

II. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In Claim 15 the term "integrally associated" is deemed to be unclear regarding the manner that the different features are considered associated integrally to the carrier. Applicants respectfully disagree that this term is unclear.

As noted in the specification, the invention provides carriers for the synthesis of compounds (*e.g.*, polymeric compounds such as nucleic acids). See, *e.g.*, page 15, lines 12-13. As is further illuminated in the specification, features that are "integrally associated" with a carrier are attributes that are detectable and/or quantifiable during synthesis of the compound, *i.e.*, that are a sufficiently integral part of the carrier that they are associated with the carrier prior to any synthesis as "pre-encoding", and remain with the carrier under all conditions necessary for synthesis or other processing or handling of a compound. The integral association may comprise a property of the material used to form the carrier (see, *e.g.*, page 22 at line 8-10), or such association may comprise attachment to or containment within a carrier (page 19, lines 15-16). Still further, such association may comprise colloidal association. See, *e.g.*, the discussion of fluorescent microparticles attached to the carrier by colloidal interactions (page 20, lines 1-5).

For the reasons recited above, Applicants submit that the phrase "integrally associated," when considered in view of the teachings of the specification, is clear. Applicants respectfully request that these rejections be withdrawn.

The Claims Are Not Anticipated

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d. 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

III. Claims 15, 17-21, 23-25, 28-2963 and 63-66 stand rejected under 35 U.S.C. 102 (b) as allegedly being anticipated by Egner et al (Chem. Commun., 1997). Egner discloses spherical beads tagged with different combinations of fluorescent dyes. For business reasons and without acquiescing to the Examiner's arguments, and reserving the right to prosecute the original or

similar claims in one or more future applications, Claim 15 is amended herein to recite that each carrier in the plurality of distinctively identifiable carriers comprises at least two light emanating features comprising a light scattering feature and a molecular fluorescence feature. While not acquiescing that Egner teaches the other elements of Claim 15, Applicants respectfully point out that the beads of Egner do not comprise both a light scattering feature and a molecular fluorescence feature. As such, Egner fails to teach each of the elements of the instant claims as amended. For these reasons, Applicants respectfully submit that the claims as amended are not anticipated by Egner and respectfully request that these rejections be withdrawn.

IV. Claims 15, 17-21, 24 and 65 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Lawandy (USP2003/0142713). Applicants respectfully disagree. The published application relied upon by the Examiner was filed on February 5, 2003 as a Divisional of an application filed on May 12, 1999 (now abandoned). This parent case claims priority to four different Provisional applications: No. 60/085,286, filed on May 13, 1998, No. 60/086,126, filed on May 20, 1998, No. 60/127,170, filed on Mar. 30, 1999, and No. 60/128,118, filed on Apr. 7, 1999, none of which are publically available via the PAIR system. For the reasons discussed in the Amendment and Response filed on May 15, 2008, Applicants assert that the instant claims properly claim the benefit of Australian Patent PP7372, filed November 30, 2008. Only two of the four provisional applications have filing dates prior to November 30, 1998.

A reference publication under 102(e) is accorded the date of an earlier filed provisional application only if the earlier-filed application has proper support for the subject matter for which priority is sought, as required by 35 U.S.C. 119(e). See, for example, MPEP 706.02(f)(1), Example 2. The Examiner has relied entirely on the specification of the non-provisional application filed in 2003 and has not indicated which, if any, of the four provisional applications also provide the allegedly anticipating subject matter. More particularly, the Examiner has not established that either of the two provisional applications filed in 1998 contain subject matter to support the priority claim of the cited reference, or subject matter related to the rejected claims.

Applicants respectfully submit that, without providing at least identification of the relevant Provisional application relied upon to allegedly establish Lawandy as prior art, and without some discussion correlating the disclosure of the 2003 application to the same disclosure in a priority application predating the filing date of the instant application, the Examiner has

failed to establish anticipation by Lawandy under 102(e) and respectfully request that this rejection be withdrawn.

V. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 102(a) as allegedly being anticipated by Garman et al (WO 9847838). Garman relates to the synthesis of coded beads comprising "random features" for use in categorizing individual beads, *e.g.*, during combinatorial synthesis. In particular, Garman relates to beads that have optically distinguishable features (page 6, lines 5-6), in particular, microparticles that are incorporated into the beads during the polymerization to form the bead from monomer (page 6, lines 21-22). Garman teaches that the pattern of microparticles within a particular bead is characterized by taking images of the bead (page 7, lines 23-31), to determine the coded pattern associated with that bead.

While not acquiescing that the claims are anticipated by Garman, as noted above, Claim 15 is amended herein to recite that each carrier in the plurality of distinctively identifiable carriers comprises at least two light emanating features comprising a light scattering feature and a molecular fluorescence feature.

While not acquiescing that Garman teaches the other elements of Claim 15, Applicants respectfully point out that the beads of Garman do not comprise both a light scattering feature and a molecular fluorescence feature. For these reasons, Applicants respectfully submit that the claims as amended are not anticipated by Garman and respectfully request that these rejections be withdrawn.

VI. Claims 15-19, 22-25, 28-29 and 63 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Yamashita et al (WO95/32425). Yamashita discloses uniform beads (*e.g.*, Tentagel 10-30 micron particles, page 4 line 16) tagged by addition of combinations of fluorophores and non-fluorophores. While not acquiescing that the claims are anticipated by Yamashita, as noted above, Claim 15 is amended herein to recite that each carrier in the plurality of distinctively identifiable carriers comprises at least two light emanating features comprising a light scattering feature and a molecular fluorescence feature.

While not acquiescing that Yamashita teaches the other elements of Claim 15, Applicants respectfully point out that the beads of Yamashita do not comprise both a light scattering feature and a molecular fluorescence feature. For these reasons, Applicants respectfully submit that the

claims as amended are not anticipated by Yamashita and respectfully request that these rejections be withdrawn.

VII. Claims 15, 17-21 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Seul et al (USP 7083914). Seul discloses uniform beads (*e.g.*, NovaSyn TG amino microspheres, col 15 line 44) tagged by addition of combinations of fluorophores, for color coding. While not acquiescing that the claims are anticipated by Seul, as noted above, Claim 15 is amended herein to recite that each carrier in the plurality of distinctively identifiable carriers comprises at least two light emanating features comprising a light scattering feature and a molecular fluorescence feature.

While not acquiescing that Seul teaches the other elements of Claim 15, Applicants respectfully point out that the beads of Seul do not comprise both a light scattering feature and a molecular fluorescence feature. For these reasons, Applicants respectfully submit that the claims as amended are not anticipated by Seul and respectfully request that these rejections be withdrawn.

VIII. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Kauvar et al (USP6642062). Kauvar discloses using combinations of dyes, particularly fluorescent dyes, to generate multihued labels. While not acquiescing that the claims are anticipated by Kauvar, as noted above, Claim 15 is amended herein to recite that each carrier in the plurality of distinctively identifiable carriers comprises at least two light emanating features comprising a light scattering feature and a molecular fluorescence feature.

While not acquiescing that Kauvar teaches the other elements of Claim 15, Applicants respectfully point out that Kauvar does not teach a synthesis support or carrier comprising both a light scattering feature and a molecular fluorescence feature. For these reasons, Applicants respectfully submit that the claims as amended are not anticipated by Kauvar and respectfully request that these rejections be withdrawn.

The Claims Are Not Obvious

As the Board of Patent Appeal and Interferences has confirmed, a proper obviousness determination requires that an Examiner make “a searching comparison of the claimed invention

– *including all its limitations* – with the teaching of the prior art.” *See In re Wada and Murphy*, Appeal 2007-3733, *citing In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis in original). Further, the necessary presence of all claim features is axiomatic, since the Supreme Court has long held that obviousness is a question of law based on underlying factual inquiries, including … ascertaining the differences between *the claimed invention* and the prior art. *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) (emphasis added). Indeed, Section 904 of the MPEP instructs Examiners to conduct an art search that covers “the invention *as described and claimed*.” (emphasis added). Lastly, Applicants respectfully direct attention to MPEP § 2143, the instructions of which buttress the conclusion that obviousness requires at least a suggestion of all of the features of a claim, since the Supreme Court in *KSR Int'l v. Teleflex Inc.* stated that “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (*quoting In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

In sum, it remains well-settled law that obviousness requires at least a suggestion of all of the features in a claim. *See In re Wada and Murphy*, *citing CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) and *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)).

IX. Claims 15, 17-29, 63 and 65-66 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over any one of the cited references above e.g., Egner et al, Lawandy, Garman, Yamashita ,Seul or, Kauvar (hereinafter the primary references) in view of either Kris et al (USP 6238869) or Kimura et al (USP 6228480). Lawandy is excluded here the reasons discussed above. As further discussed above, Applicants submit that none of the primary references cited disclose coded carriers comprising both a light scattering feature and a molecular fluorescence feature, in accordance with the claims as amended.

Kris relates to use of surfaces as substrates for attaching oligomers, and Kimura relates to surfaces comprising photocatalyst layers. Neither Kris nor Kimura relate to a plurality of carriers wherein each respective carrier has a code having at least two light emanating features comprising a light scattering feature and a molecular fluorescence feature. As such, Kris and Kimura fail to cure the deficiencies of Egner, Garman, Yamashita ,Seul and, Kauvar. Applicants therefore request that these rejections be withdrawn.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all grounds for rejection have been addressed and Applicants' claims should be passed to allowance. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicants encourages the Examiner to call the undersigned collect at (608) 218-6900.

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